

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Federal Communications Commission
Office of the Secretary

In the Matter of)
)
Advanced Television Systems and)
Their Impact on the Existing)
Television Broadcast Service)
)
Review of Technical and)
Operational Requirements:)
Part 73-E, Television Broadcast)
Stations)
)
Reevaluation of the UHF Television)
Channel and Distance Separation)
Requirements of Part 73 of the)
Commission's Rules)

MM Docket No. 87-268

RM-5811

COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

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SUMMARY

The video market is most competitive when, as is the case today, state-of-the-art technology is used by all media. It is not easy to maintain competition in the marketplace however, if there are marked technical quality differences among competitors. If steps are not taken to insure that ATV will be implemented by terrestrial broadcasters in the United States, some media may enjoy a technological edge, resulting in a less competitive video market.

In developing policies for the provision of ATV by terrestrial broadcasters, the Commission cannot ignore the key role "localism" has played in its regulation of the mass media industries. The Commission should proceed acknowledging the valued contribution local broadcasting makes to viewers' daily lives.

The Commission must establish a broadcast transmission standard for ATV for three reasons: (1) its regulations currently permit NTSC transmission only; (2) selection of a standard would permit the Commission to act on petitions for reallocation of UHF spectrum in an orderly and rational fashion; and (3) the potential economic impact of a failure to act by the Commission would significantly undermine the \$100 billion embedded base of television equipment.

In order for the Commission to prevent a protracted struggle over ATV standards and spectrum issues, it should set a standard for ATV broadcast transmission within three years. The Commission should rely on the following criteria in setting a standard. First, the broadcast ATV standard chosen by the Commission must be as spectrum efficient as possible. In that regard, NTIA suggests that the Commission undertake a separate proceeding to reexamine the characteristics of the UHF interference taboos. Second, the

Commission must make clear that it will select a broadcast transmission standard that will permit the continued use of current television sets for reception of terrestrial broadcasts. Third, the Commission must examine comparative quality of the systems under consideration. Fourth, the Commission should rely on industry thinking.

At least four important benefits should flow from the selection of a single standard by the Commission for broadcast ATV. First, given the developments that have already been made in creating an ATV system suitable for terrestrial broadcasting, three years afford sufficient time for further innovation. Second, by announcing a target date, the Commission will serve notice on firms engaged in development of ATV that our terrestrial broadcast media will deliver ATV, and will deliver it in about the same timeframe as other media. Third, consumers will be given the same sort of assurance that terrestrial broadcasting will be part of the ATV future. Fourth, terrestrial broadcast television will be given an opportunity to maintain its place as a competitive, state-of-the-art video technology.

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COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

The National Telecommunications and Information Administration (NTIA), as the Executive branch agency principally responsible for the development and presentation of domestic and international telecommunications and information policy, respectfully submits the following Comments in response to the Commission's Notice of Inquiry (Notice).^{1/}

^{1/} 2 FCC Rcd 5125 (1987).

I. INTRODUCTION

Several different advanced television (ATV) systems are under development around the world. The advent of ATV in the United States is certain and will profoundly change the television viewing experience. The video market is most competitive when, as is the case today, state-of-the-art technology is used by all media. If steps are not taken to insure that ATV will be implemented by terrestrial broadcasters in the United States, some media will enjoy a technological edge, resulting in a less competitive video market.

At present, it appears that among the various media, the technical implementation of ATV may be more difficult for terrestrial broadcasters. ATV broadcasters may need additional spectrum and may incur substantial expenses in converting studio and transmission facilities to ATV. It is less clear how expensive or difficult the implementation of ATV by cable and DBS may be. VCRs may accommodate ATV with some dislocations, but appear to be most easily adaptable to new video systems because there is virtually no transmission element.

Regardless of which media provide ATV, the Commission should proceed acknowledging the valued contribution local broadcasting makes to viewers' daily lives. The Commission cannot ignore the key role "localism" has played in its

regulation of the mass media industries.^{2/} In addition, localism serves the needs of our country and its unique characteristics of size, diversity, and heterogeneity. Unlike Japan and the European countries, U.S. television service must serve communities throughout a large land mass. As television service developed, the Commission determined that a channel allocation plan should maximize local television service, not regional service.^{3/} Localism is also important because it furthers a diffusion of control over what people see and hear, and thereby helps to promote diversity in our media. Each local broadcaster is responsible for selecting each program broadcast, whether it is distributed by a network, a syndicator, or is locally originated. Local programming responsibilities are consistent with the first amendment^{4/} and help prevent control by a few firms over what the entire country views on television. The principle of localism also applies to the

2/ Memorandum Opinion and Order, In the Matter of Amendment of Part 76 of the Commission's Rules Concerning Carriage of Television Broadcast Signals by Cable Television Systems in MM Docket No. 85-349, 2 FCC Rcd 3593, 3626 (1987), Quello, Commissioner, concurring-in-part and dissenting-in-part; Report and Order In the Matter of Deregulation of Radio, BC Docket No. 79-219, RM-3099, RM-3273, 84 F.C.C. 2d 968, 994 (1981); See also, Pasadena Broadcasting Co. v. FCC, 555 F.2d 1046, 1050 (D.C. Cir. 1977).

3/ Television Assignments, 41 F.C.C. 148, 167-173 (1952).

4/ National Broadcasting Co. v. U.S., 319 U.S. 190 (1943); Columbia Broadcasting Sys., Inc. v. Democratic Nat'l. Comm., 412 U.S. 94, 121 (1973).

uniquely heterogeneous U.S. population, where, in each community there is a particular blend of people from various cultures, races, religions. Local broadcast stations are the primary source of local news, information about local and state government, and cover issues of particular concern in the community and region.

In addition to its legal underpinnings, local service by broadcasters is often good business. The value audiences place on local broadcasting is reflected, in part, by the high ratings many news and public affairs programs receive and the fact that for many broadcasters, this programming generates profits.

Moreover, NTIA believes that the increasing competitiveness among media in our video marketplace has paid important public dividends such as more choices, more convenience, and greater ease of use. We would like to see that competition and its public benefits continue and, indeed, increase. It is not easy to maintain competition in the marketplace however, if there are marked technical quality differences among competitors. It is not farfetched to compare the advent of ATV with a time, perhaps 25 years ago, when the Commission was considering policies to promote the greater use of FM radio.^{5/} Instead of promoting fully

5/ Stereophonic Broadcasting Docket 13506, 21 RR 1605 (1961); Revision of FM Broadcast Rules, Particularly as to Allocation and Technical Standards Docket 14185, 23 RR 1859 (1963).

competitive audio services, the government decisions may have had the unintentional effect of creating an unequal playing field. Twenty-five years later, we face the possibility that radio service, overall, may not be as competitive as it might have been, to the ultimate detriment of the American public.

Finally, although cable television is becoming available to more and more homes, it is unrealistic to expect cable television penetration levels to exceed 70 percent. For those viewers unserved by cable television and others who want to exercise their discretion to continue to view over-the-air services, policies should be followed that will facilitate quality over-the-air service. If the technical quality of over-the-air television service declines, the public will suffer a corresponding decline in the quality of programming elements, particularly in locally originated programming.

The FCC has an indisputable and important function with regard to broadcasting and ATV. The Commission must establish a broadcast transmission standard for ATV for three reasons: first, its regulations currently permit NTSC transmission only; second, selection of a standard would permit the Commission to act on petitions for reallocation of UHF spectrum in an orderly and rational fashion; and third, the potential economic impact of a failure to act by the Commission would significantly undermine the \$100 billion embedded base of television equipment.

The Commission should make clear that it has no intention to chill the development of ATV for other media, but that it also has no intention of letting government rules or policies regarding ATV weaken local broadcasting. The Commission must make sure that the kind of official "handicapping" that characterized the radio services does not arise in the case of video services. We do not want some video competitors to enjoy a special ATV technological edge by virtue of a failure of government policymaking. One important step necessary to ensure the competitiveness of conventional broadcasting is for the Commission to prevent protracted, confusing, and divisive battles over spectrum and standards.

II. STANDARD SETTING BY THE COMMISSION

In order for the Commission to prevent a protracted struggle over ATV standards and spectrum issues, it should set a standard for ATV broadcast transmission within a time certain. The Commission should target completion of that rulemaking within three years. The Commission should be disinclined to extend that time, but if necessary, any extension should be limited to weeks and months. In setting a standard, the Commission should rely on the four following criteria.^{6/}

^{6/} These are not listed in any order of importance.

1. The broadcast ATV standard chosen by the Commission must be as spectrum efficient as possible. Although other portions of the radio spectrum have been considered for broadcast transmission of ATV, we believe it is most likely the UHF and VHF bands will be used. One of the most pressing issues is whether the additional UHF spectrum now being sought by land mobile users should be allocated to them.^{7/} NTIA is of the view that this UHF spectrum must not be reallocated to land mobile users until it is clear whether additional UHF spectrum will be necessary for broadcast ATV. On the other hand, broadcasters must not be permitted speculatively to claim this spectrum indefinitely.^{8/}

The possibility that additional UHF spectrum will not be available to broadcasters is an incentive for continued efforts to improve compression techniques and develop higher resolution within existing 6 MHz channels. Development of a system using more than 6 MHz should not be discouraged, however, because it might be necessary to employ more than 6 MHz channels to create a perceptibly better and competitive system. We note, however, that a 6 MHz system is desirable because it would permit quicker implementation of ATV by broadcasters, thereby avoiding the possibility of both a lengthy proceeding to reassign channels and a protracted

7/ Notice of Proposed Rule Making in Gen Docket Nos. 85-172 and 85-173, 50 Fed. Reg. 25,587 (1985).

8/ Letter from Alfred C. Sikes to Mark S. Fowler (March 17, 1987) filed in Gen. Docket No. 85-172.

struggle among broadcasters and potential other users of the needed UHF frequencies.

The Commission should undertake a separate proceeding to reexamine the characteristics of the UHF interference taboos. Since first introduced in 1952, it has become evident that the current set of taboos on potential interference mechanisms may be overly restrictive. A concentrated and balanced effort is necessary to achieve efficiency and compatibility while avoiding an entanglement of complex taboo procedures. Additionally, interim developments on improved television receiver designs have indicated superior performance relative to several receiver interference immunity criteria. Once an ATV transmission standard is determined, the Commission should ask to what extent the UHF taboos can be relaxed to more efficiently use this spectrum for broadcast and other uses. The separate proceeding we recommend should reexamine the VHF and UHF allocations for consistency in interference criteria and to see whether emerging ATV receiver designs include consideration of specifications for improved receiver immunity to interference.

2. The Commission must make clear that it will select a broadcast transmission standard that will permit the continued use of current television sets for reception of terrestrial broadcasts. If the broadcaster is either sending

two signals or is transmitting a single ATV signal, the receiver should be capable of decoding the NTSC portion of the signal without significant degradation of the current NTSC picture and sound. Thus, the Commission should establish a transmission standard for ATV that "builds on" the NTSC standard. NTSC compatibility is the most practical way for ATV to be introduced because it will not make existing receivers obsolete. NTSC compatibility is essential to preserve broadcasters' ability to serve effectively their local communities. Therefore, NTSC compatibility will serve the public interest by ensuring consumers will be able to make use of existing sets and will have access to local broadcast signals.

3. The Commission must examine comparative quality of the systems under consideration. It is hoped that the industry representatives will be in agreement on their support of one system, but failing a consensus, the Commission must be willing and able to exercise its own judgment.

4. The Commission should rely on industry thinking. NTIA looks to the establishment of several different broadcast industry groups, including the Advanced Television Systems Committee and the recently established FCC Advisory Commission on Advanced Television, as opportunities for

broadcasters, equipment manufacturers, and programmers to reach a consensus over the next several months on the "best" ATV broadcast system. The Commission should be guided in its selection of a single system by the industry choice, much as it was in the implementation of Multichannel Television Sound (MTS).^{9/}

At least four important benefits should flow from the selection of a single standard by the Commission for broadcast ATV. First, given the developments that have already been made in creating an ATV system suitable for terrestrial broadcasting, three years should afford sufficient time for further innovation. We are hopeful that within the timeframe specified by the Commission, a spectrum efficient system will be developed.

Second, by announcing a target date, the Commission will serve notice on firms engaged in development of ATV that our terrestrial broadcast media will deliver ATV, and will deliver it in about the same timeframe as other media. Thus, receiver manufacturers should have⁹ the incentive to build sets capable of all methods of ATV reception including broadcast distribution. This will avoid development of "compartmentalized" receivers capable only of partial ATV

^{9/} Second Report and Order in Docket 21323 (FCC 84-116), 49 Fed. Reg. 18,000 (April 27, 1984.)

reception, a development which would not serve the public interest.

Third, consumers will be given the same sort of assurance that terrestrial broadcasting will be part of the ATV future. This information is important for consumers to make decisions about video equipment and services.

Fourth, terrestrial broadcast television will be given an opportunity to maintain its place as a competitive, state-of-the-art video technology. Other media are not as affected by government rules and therefore may be more agile, more able to adapt quickly to changing technologies and accompanying regulations. If the Commission fails to select a single set of technical specifications for broadcast transmission of ATV, terrestrial broadcasting will be effectively "handicapped" in remaining fully competitive with other video services.

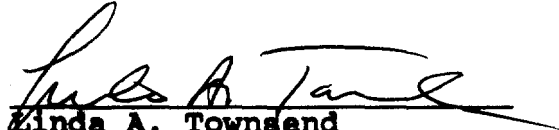
IV. CONCLUSION

For the foregoing reasons, NTIA strongly urges the Commission to conclude this inquiry by making clear its intention to engage in a rulemaking proceeding to establish a single, NTSC-compatible broadcast transmission standard

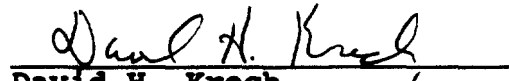
within three years. In addition, the Commission should initiate a separate proceeding to reexamine UHF spectrum taboos in light of the advent of ATV broadcast transmission.

Respectfully submitted,

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